

ABSTRACT OF THE DISCLOSURE

A porous structure or surface-roughened structure impregnated with fine bone powder is usable as an artificial bone or artificial dental root. The porous structure has communicating macro-pores having an average diameter of 100-1000 μm open on its entire outer surface at a density of 1 or more per an area of 1000 μm x 1000 μm , and fine communicating pores or recesses having an average diameter of 0.005-50 μm open in the communicating macro-pores at a density of 1 or more per an area of 50 μm x 50 μm . The surface-roughened structure has fine recesses having an average diameter of 0.005-50 μm and an average depth of 0.005-50 μm open on its entire outer surface at a density of 1 or more per an area of 50 μm x 50 μm .